

THAT WHICH IS CLAIMED IS:

1. A portable electronic device, comprising:

a housing;

a display integrated with the housing;

5 a thumb-operable input device positioned on a side of the housing;

an indicator on the display operatively associated with the thumb-operable input device, the indicator being positioned on the display to highlight and/or select menu items on the display responsive to input received at the thumb-operable input device.

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2. The device of Claim 1 wherein the thumb-operable input device comprises at least one thumb position sensor and wherein the thumb position sensor is configured to detect a position of a thumb on the thumb-operable input device and move the indicator on the display between the menu items responsive to the position 15 of the thumb on the thumb-operable input device.

3. The device of Claim 1 wherein the thumb-operable input device further comprises:

20 at least one thumb movement sensor configured to detect movement on the thumb-operable input device; and

a processor operatively associated with the at least one thumb movement sensor, the processor being configured to process the detected movement and move the indicator on the display between the menu items responsive to the processed movement.

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4. The device of Claim 3, wherein the thumb movement sensor is further configured to detect movement via fingerprint analysis.

5. The device of Claim 4, wherein the thumb movement sensor is further 30 configured to detect distortion of a fingerprint on the thumb-operable input device and wherein the processor is further configured to process the detected distortion of the fingerprint and highlight and/or select menu items on the display responsive to the detected distortion.

6. The device of Claim 1, wherein the thumb-operable input device comprises:

a slot; and

5 a bar configured to slide in the slot to position the indicator on the display to highlight and/or select one of a plurality of menu items.

7. The device of Claim 6, wherein the thumb-operable input device further comprises:

10 a plurality of notches in the slot, each of the plurality of notches being associated with one of the plurality of menu items, wherein the bar is further configured to move in the slot between the notches to position the indicator on the display to highlight and/or select the associated menu item.

15 8. The device of Claim 7 further comprising:

a sensor operatively associated with the bar and configured to detect movement of the bar in the slot; and

20 a processor operatively associated with the sensor, the processor being configured to process the detected movement of the bar and move the indicator on the display between the menu items responsive to the processed movement.

9. The device of Claim 6 wherein the thumb-operable input device further comprises a spring mechanism, the spring mechanism being configured to reposition the bar at an end of the slot between selections of menu items.

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10. The device of Claim 1 wherein the thumb-operable input device comprises at least one of a fingerprint sensor, touchpad or hinged bar, wherein the indicator is configured to move between menu items responsive to upward and/or downward movement on the fingerprint sensor, the touchpad or the hinged bar.

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11. The device of Claim 1, wherein the thumb-operable input device comprises a touchpad positioned on a side of the housing.

12. The device of Claim 11 further comprising:
a sensor operatively associated with the touchpad and configured to detect
movement on the touchpad; and
5 a processor operatively associated with the sensor, the processor being
configured to process the detected movement on the touchpad and move the indicator
on the display between the menu items responsive to the processed movement.

13. A man-machine interface (MMI) for a portable electronic device,
10 comprising:
a thumb-operable input device; and
an indicator on a display of the portable electronic device, the indicator being
operatively associated with the thumb-operable input device and positioned on the
display to highlight and/or select menu items on the display responsive to input
15 received at the thumb-operable input device.

14. The MMI of Claim 13 wherein the thumb-operable input device
comprises at least one thumb position sensor and wherein the thumb position sensor is
configured to detect a position of a thumb on the thumb-operable input device and
move the indicator on the display between the menu items responsive to the position
20 of the thumb on the thumb-operable input device.

15. The MMI of Claim 13 wherein the thumb-operable input device further
comprises:
25 at least one thumb movement sensor configured to detect movement on the
thumb-operable input device; and
a processor operatively associated with the at least one thumb movement
sensor, the processor being configured to process the detected movement and move
the indicator on the display between the menu items responsive to the processed
30 movement.

16. The MMI of Claim 15, wherein the thumb movement sensor is further
configured to detect movement via fingerprint analysis.

17. The MMI of Claim 16, wherein the thumb movement sensor is further
configured to detect distortion of a fingerprint on the thumb-operable input device and
5 wherein the processor is further configured to process the detected distortion of the
fingerprint and highlight and/or select menu items on the display responsive to the
detected distortion.

18. The MMI of Claim 14 wherein the thumb-operable input device
10 comprises:
a slot; and
a bar configured to slide in the slot to position the indicator on the display
to highlight and/or select one of a plurality of menu items.

15 19. The MMI of Claim 18 wherein the thumb-operable input device further
comprises:
a plurality of notches in the slot, each of the plurality of notches being
associated with one of the plurality of menu items, wherein the bar is configured to
move in the slot between the notches to position the indicator on the display highlight
20 and/or select the associated menu item.

20. The MMI of Claim 19 wherein the bar is operatively associated with a
sensor that is configured to detect movement of the bar in the slot and wherein the
sensor is operatively associated with a processor that is configured to process the
25 detected movement of the bar and move the indicator on the display between the
menu items responsive to the processed movement.

21. The MMI of Claim 18 wherein the thumb-operable input device further
comprises a spring mechanism, the spring mechanism being configured to reposition
30 the bar at an end of the slot between selections of menu items.

22. The MMI of Claim 14 wherein the thumb-operable input device
comprises at least one of a fingerprint sensor, touchpad or hinged bar, wherein the

indicator is configured to move between menu items responsive to upward and/or downward movement on the fingerprint sensor, the touchpad or the hinged bar.

23. The MMI of Claim 14 wherein the thumb-operable input device
5 comprises a touchpad.

24. The MMI of Claim 23 wherein the touchpad is operatively associated
with a sensor that is configured to detect movement on the touchpad and wherein the
10 sensor is operatively associated with a processor that is configured to process the
detected movement on the touchpad and move the indicator on the display between
the menu items responsive to the processed movement.

25. A method of operating a portable electronic device comprising
positioning an indicator on a display to highlight and/or select menu items on the
15 display responsive to input received at a thumb-operable input device.

26. The method of Claim 25, further comprising:
detecting movement on the thumb-operable input device;
processing the detected movement; and
20 moving the indicator on the display between the menu items responsive to the
processed movement.

27. The method of Claim 26 wherein detecting movement on the thumb-
operable input device comprises detecting movement via fingerprint analysis.

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28. The method of Claim 27, wherein detecting movement further
comprises:

detecting distortion of a fingerprint on the thumb-operable input device; and
processing the detected distortion of the fingerprint; and
30 highlighting and/or selecting menu items on the display responsive to the
processed distortion.

29. The method of Claim 25 wherein positioning the indicator comprises
sliding a bar in a slot in a housing of the portable electronic device to position

the indicator on the display to highlight and/or select one of a plurality of menu items.

30. The method of Claim 29 wherein positioning the indicator further comprises:

5 moving the bar in the slot between a plurality of notches associated with one of the plurality of menu items to position the indicator on the display to highlight and/or select the associated menu item.

31. The method of Claim 29 further comprising repositioning the bar at an
10 end of the slot between selections of menu items.

32. The method of Claim 25 wherein positioning the indicator further comprises moving the indicator between the menu items responsive to upward and/or downward movement on a fingerprint sensor, a touchpad or a hinged bar.